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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/491,994 01/26/00 KELSAY

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INTELLECTUAL PROPERTY ADMINISTRATION
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EXAMINER

WILLIAMS, K
ART UNIT PAPER NUMBER

2854
DATE MAILED:

03/15/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.

09/491,994

Applicant(s)

KELSAY, CURTIS GREGORY

Examiner

Kevin D. Williams

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "79" is not in the specification. Correction is required.

Specification

2. The disclosure is objected to because of the following informalities:

In the abstract lines 4 and 5 are awkward.

On page 2, line 6 is awkward, particularly "there is are lenses." Appropriate correction is required.

Claim Objections

3. Claims 5 and 6 are objected to because of the following informalities:

Claim 5 recites the limitation "the first" in line 4. There appears to be insufficient antecedent basis for this limitation in the claim.

The language "exiting optical data port" of claims 5 and 16 is awkward.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 7-11, 13-15, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,128,117) in view of Sedlmayr (US 6,034,818).

Note that although Kim does not provide a drawing of the system unit in the printer, it is understood that the system can be provided in the printer.

Kim teaches a printer comprising a print engine, a controller including an optical transducer 34, receive and transmitting signal lines 56,54 having first ends coupled to an optical transducer and second ends arranged to provide an optical data port 20 for infrared communication.

Kim does not teach a light pipe, a first lens of the transmit light pipe, and first and second lens of the receive light pipe.

Sedlmayr teaches a light pipe 75 having a first lens 45 and a second lens 71 being formed as part of the pipe. Sedlmayr provides the lens 45 and the lens 71 to collimate the light being transmitted (Fig. 27A).

Kim provides signal lines 56,54 to transport the light being transmitted and received.

Sedlmayr teaches that it is known to use a light pipe to transport light and it would have been obvious to one having ordinary skill in the art to modify Kim to have the light pipe as a mere design alternative. In view of the teaching of Sedlmayr to provide lens at each end of the pipe for the purpose of collimating light entering and leaving the pipe it would have been obvious to one having ordinary skill in the art to

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have lens at both ends of the receive pipe and at the first end of the transmit pipe, in order to collimate light entering and leaving the pipes.

6. Claims 5, 6, 12, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Sedlmayr as applied to claims 1-4, 7-11, 13-15, 18, and 19 above, and further in view of Kawakami et al (US 5,848,203).

Kim in view of Sedlmayr teach the claimed invention except for the second lens of the transmit pipe for increasing an angle of light exiting the optical data port.

Kim in view of Sedlmayr teach a second lens 71. Lens 71 is not a lens for increasing an angle of light.

Kawakami et al teach a lens 27A for increasing an angle of light (col. 2, lines 39-43) and it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kim in view of Sedlmayr to have the lens as taught by Kawakami et al, in order to increase the angle of the light exiting the data port.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 6,125,228 to Gong, 5,682,379 to Mahany, 6,064,502 to Burns et al, and 6,188,495 to Inoue et al disclose similar devices.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (703) 305-3036. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John S. Hilten can be reached on (703) 308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4084 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

KDW
KDW
March 12, 2001



JOHN S. HILTEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800